THE PURPOSES ACHIEVED BY RAILROAD REORGANIZATION[1]

A railroad reorganization centers about the means chosen to rehabilitate the bankrupt property, and the practical expedients available. It has been recognized by all men concerned in the actual reorganization of a railroad property and by all students of the subject that two primary ends are always present. New money must be obtained from either the old security holders or the new investors, or from both, in order to meet the debts incurred by the receivership, and to provide the reorganized road with new money for improvements and reconstruction. This is admittedly only a temporary aid, but it is necessary, in order to protect the road during the critical period of its rehabilitation. Further, the load of fixed charges, such as bond interest and rentals, the payment of which probably occasioned the railroad failure, must be reduced so as to be well within the earning capacity of the new road. This is the permanent end achieved by the reorganization; it assures a solvent and prosperous railroad long after the period of rehabilitation has passed. The two primary ends of every railroad reorganization are therefore the increase of available capital and the reduction in fixed charges. This article discusses the practical expedients employed to attain these primary ends.

Any generalizations concerning the means employed in contemporary railroad reorganizations must of necessity be very general. All railroads differ among themselves. The specific causes of railway failure are never the same in two instances. Consequently, in order to discuss reorganization plans in any except the most general terms, and to treat of the subject with clearness and definiteness of outline, it is necessary to arrange railroad reorganizations themselves according to some kind of system of classification, else any discussion of the subject degenerates into a mere jargon of unordered cases. But a classification of railway reorganizations is difficult owing to the extreme difficulty of determining a proper system or scheme.

From all points of view, the most valuable way of classifying

[1] Preceding articles are: "The Theory of Railroad Reorganization," published in the December, 1918, number of the American Economic Review (vol. VIII), p. 774; and "The Procedure of Contemporary Railroad Reorganization," published in the March, 1919, number (vol. IX), p. 1.

railroad reorganizations themselves (and the practical expedients used in accomplishing the two primary ends), is in terms of the causes and extent of the embarrassment which occasioned the necessity of reorganization. In other words, reorganizations are best classified according to their causes. Financial embarrassment, actual or threatened, is the cause of the crisis of which reorganization is the remedy. A reorganization, therefore, can be successfully consummated only as it removes the cause, so that any attempt at classification must recognize that the form as well as the concrete details of railway reorganizations will vary according to the nature, extent, and seriousness of the failures which caused them.

There are, in general, three types of railway failure—two pertaining to large railway systems, the third confined to small independent railroads.

The first type, which we will hereafter call *primary failures* and the resulting reorganizations *primary reorganizations*, is the result of an embarrassment which is serious, thoroughgoing, and usually long protracted. This class embraces real financial and economic failures of our large railways. In the actual experience of a particular case, one may assume that the crisis has been coming on for many years. Various palliatives have been applied. Various expedients have been tried; not infrequently some expedient has even approached the scope of a reorganization. Every known device of economy of operation has been tested. Usually the railway system has been over-extended into new or competing territory in the hope of increasing the stability of net earnings through increased gross revenue. Ordinarily, every available prop in the way of association and combination has been tried to increase the available net earnings; every known financial device of lease and guaranty, of collateral trust bond, debenture and short term note, has probably been resorted to in order to secure money and bolster up a declining credit. All these expedients are at most mere palliatives. They avail nothing. The net earnings continue to decline, the bond interest and rentals increase more rapidly than the earnings. The margin available to the stockholders grows narrower and narrower, and the credit poorer and poorer. Such conditions are fundamental. Yet as the current liabilities of a railroad are always relatively small and its floating debt is, or ought to be, insignificant compared with its total capitalization, the conditions described may continue for some time before a

specific crisis brings about an outward acknowledgment of failure. The important consideration, however, is that the railway system as a whole is a failure economically. Its earning capacity cannot justify its capitalization.

The second class, called hereafter *secondary failures* and the resulting reorganizations *secondary reorganizations*, embraces those railroad failures which cannot be called fundamental. The earnings, for a few years past, may have fallen off; bad crops, floods, or strikes in the principal industries may have produced conditions seriously affecting the gross receipts, while the operating expenses and fixed charges remained the same; short term notes or a maturing bond issue may have created financial embarrassment. At all events, a crisis occurs and the railroad's credit cannot withstand it. Failure results. But the causes underlying it are not fundamental. And the remedies that need be applied are neither as comprehensive nor as radical as is necessary with failures of the primary type.

The third type pertains only to small, unimportant, and often unfinished lines of railway. Sometimes the existence of the road was unjustified by the volume of traffic. Sometimes the road was built merely for strategic purposes. Sometimes the road was so grossly overcapitalized and mismanaged, during the construction period, that it became insolvent before it was born. At all events, the railroad is a thoroughgoing failure.[2] But this failure, due to the insignificant importance of the road or the absence of its obvious public necessity, is not of great economic significance. Its securities are probably closely held and the failure is not confessed until the last phantom of its credit has vanished. In the restricted and local significance of the undertaking, and in the extent and thoroughness of their distress, the failures of these little local lines resemble the failures of small local industrial enterprises. Failures of this kind are hereafter called Class III.

The resulting reorganization plans and expedients follow closely this classification of railway failures. The reorganization of a railway, the failure of which is of the first class, is thorough, comprehensive, and radical. Practically all securities, even small underlying closed first mortgage bond issues, are refunded. And

[2] One little railroad of this type, the St. Louis and Hannibal, was organized in 1872 and the main line opened in 1882. In 1886 the company issued first mortgage 7 per cent bonds, yet has never paid a single coupon from then until now. The road has just been reorganized, through refunding these bonds into common stock.

while the holders of these underlying bonds are not ordinarily asked to endure any sacrifices, they are asked to refund their variety of divisional issues into a single comprehensive first mortgage bond issue covering the entire railway system. Ordinarily the interest rate on this single issue is lower than the average rate on the small issues which it refunds, so that it is often necessary to increase the principal or add a complement of junior securities in order to placate these old bondholders. The holders of junior bonds, provided the interest on them can be earned unquestionably, are usually given bonds of a "general" or refunding issue. All other bonds, upon which little or nothing was earned in the years before the failure, are forced to take a preferred stock in the new company. The old preferred and common stocks are assessed, and offered new preferred and common stock. As a result of these changes, a complex financial situation, involving a multitude of small divisional issues, followed by several layers of nondescript bonds, followed in turn by notes and preferred and common shares, is simplified and standardized. There are one or two senior issues of bonds, one issue of preferred stock, and one of common. Considerable amounts of new money are added through stockholders' assessments; the fixed charges are reduced by the refunding of the old underlying and first mortgage bonds into one or two issues of new low interest rate bonds, and by refunding the junior bonds into preferred stock. The reorganization, like the failure it follows, is penetrating, drastic, and comprehensive.

Reorganizations following failures of the second class are superficial compared to those described in the previous paragraph. As the failure is not fundamental, a radical readjustment of the financial structure is neither necessary nor advisable. Accordingly, no attempt is made to disturb more than the stocks and junior bonds, and no radical sacrifice is demanded of any security holder. In many cases the whole reorganization turns on the willingness of the holders of some large overlying issue of refunding bonds, notes, or debentures to refund these into preferred stock or income bonds, bearing the same nominal investment return. The charges on the junior bonds become contingent instead of fixed. In return for this sacrifice from the junior bondholders, the stockholders consent to an assessment, receiving in return securities of relatively high value. As a whole, such a reorganization disturbs a comparatively small number of securities, and these are only the uppermost layers of the financial structure. The failure is not serious and a serious remedy is not required.

Reorganizations of railway failures of the third class are exceedingly drastic. The little road has been bolstered up by every conceivable means. Probably when it failed the earnings were actually less than its expenditures. The rolling stock and roadbed are dilapidated. Consequently, relatively large amounts of receiver's certificates are issued immediately, in order to maintain the road in operation. At the time of reorganization, these must be paid. Yet the value remaining to the stockholders is so slight that they will not endure an assessment in order to maintain even their shadow of an equity. As a result, the full brunt of the reorganization falls on the bondholders. Ordinarily there is a single issue of bonds. Accordingly, the holders assess themselves to pay off the receiver's certificates and to furnish the requisite new money. In effect, they take over the ownership of the road from the old stockholders. In some instances, not only the stockholders' interests are eliminated, but also those of all the bondholders and the road is taken over by the holders of receiver's certificates. In cases of complete failure, the holders of the receiver's certificates may be forced to assess themselves to maintain the operation of the road.

The first of the three types just described stands for serious and fundamental failures followed by drastic and comprehensive plans of reorganization. The other two types are modifications of this—the second type representing less serious failures followed by merely superficial reorganizations, and the third type the utter failures of small local railways. In view, therefore, of the greater significance and greater intricacy of the first type of railroad reorganizations, our study of the expedients to be used in reducing fixed charges and securing new money will refer explicitly to reorganizations of this type. The expedients used in the second and third types are modifications of those employed in the first type.

At the time of the serious failure of a great railroad system with an intricate financial structure, it is found that there exist at least three classes of bonds or fixed charge securities, one or more classes of contingent charge security, and the common stock. The three classes of bonds are of three different levels. The first, both in point of time and priority of security, include the old underlying main line and divisional bond issues created during the period of construction and still secured by first closed mortgages on most, if not all, of the important lines of the railway. The

second level consists of an issue of general first mortgage bonds, and possibly issues of second and third mortgage bonds. These bonds embrace the entire railway system. They represent liens subsequent to the bond issues of the first level, when such exist, and a first lien on such parts of the system not covered by underlying liens. These issues were created after the railway system had taken form—during the period of development, in contra-distinction to the previous period of construction. The third level represents the numerous junior issues of general, consolidated, or refunding mortgage bonds, debentures and short term secured and unsecured notes, issued at subsequent times, usually at a considerable discount, or at a high rate of interest. Owing to the differences in lien, these three kinds of bonds are considered separately in effecting a reduction in fixed charges.

The first step in the problem of reduction of the interest charges on the bonded debt is the determination of the position of the old underlying or divisional mortgages. Invariably, unless the railway system had been reorganized before, and even then unless the previous reorganization had penetrated to the marrow, there will be found a host of underlying bonds, on branch lines and subsidiary roads, that have been allowed to continue in force because there seemed nothing else to do. These carry, ordinarily, high rates of interest, they mature at various dates and are secured by dissociated and often unrelated sections of line.

In a few of the earlier railroad reorganizations a temporary reduction in the charges on these underlying bonds was accomplished by requiring the holders either to refund or else surrender the coupons covering a definite period of years.[3] This effected merely a temporary relief and was based on the presumption that earnings would improve in a short time. It is, however, a method of reducing fixed charges never adopted at the present time, when the guiding principle of every railroad reorganization is to secure permanent strength.

Since the reorganization of the Wabash system in the late eighties, historically the first of the great comprehensive railroad reorganizations of Class I,[4] it has become the established practice

[3] Thus in the Chesapeake and Ohio Railroad reorganization of 1878 the first mortgage bondholders funded the coupons of the three following years into preferred stock and the second mortgage bondholders the coupons of the next six years. A similar plan was followed in the Erie reorganization of the same year.

[4] This particular reorganization is described in the first article of this series, Am. Econ. Rev., vol. VIII, p. 774.

to refund most, if not all, of the underlying and divisional issues into a single issue of first mortgage long-time bonds, bearing a low rate of interest and smaller, in principle, than the old underlying and divisional issues. It substitutes a single large bond issue for a heterogeneous mass of small issues; it simplifies the railroad's financial structure. It probably reduces the burden of fixed charges, and it may even reduce the principle of the outstanding bonded debt. From every point of view, therefore, this substitution is of advantage to old bondholders and to the railroad.[5]

The difficulty involved in securing the refunding of these issues lies in adjusting a fair equivalence between the old security and the new, and then in the very great practical difficulty of making the holders of these bonds consent to the exchange. No reorganization can succeed which is opposed by all concerned. No reorganization can succeed which is fundamentally unjust. Much care must therefore be exercised in arranging a fair exchange for the holders of the old bonds.

In determining the relative value of these old underlying and divisional bonds, reorganization managers are concerned with the fundamental property values behind the bonds—not with the legal status or legal phraseology of the bonds and their mortgage. The basis of exchange is economic and not legal. In assessing their economic value, two considerations are of primary importance: the essential earning capacity and the strategic position of the property covered by the bonds. In other words: What does the security of the bonds earn? How important to the reorganized road is the property covered by them? The first question can be answered only in terms of past experience, and it is frequently im-

[5] This is very well expressed in the circular of the Northern Pacific Reorganization Committee of March 16, 1896, advising the holders of the old general mortgage 6 per cent bonds of 1921 covering part of the system to exchange them for 135 per cent of new prior lien 4 per cent bonds of 1997 covering the entire system. "It is manifestly to the benefit of the holders of the General First Mortgage Bonds to secure an investment of longer continuance, and it is also to the benefit of all subsequent securities to diminish this unnecessarily large burden of annual fixed charges. . . . The advantage is obvious of a mortgage resting upon a complete and entire system, including main line and all branches brought into the new company, together with terminals, land grants and equipment, and having over $200,000,000 of bond and share capital behind it, securing a gold bond running for one hundred years, as compared with a bond at all times liable to compulsory retirement and secured by only part of the system." Plan given at length in *Commercial and Financial Chronicle*, vol. 62 (1916), p. 550.

portant to segregate individual station freight statistics and passenger receipts according to the lines covered by separate mortgages in order to ascertain the immediate earning capacity of the lines covered by those liens. This is particularly important in the case of branch and subordinate divisional lines, but of no importance in determining the earning power of main lines owing to the impossibility of allocating the receipts and costs of operation between the main and branch lines. The other consideration, that of strategic importance, can be determined roughly by an inspection of the railway map. The main lines have the greatest strategic importance and must be preserved at all hazards. Those branch lines which run into isolated unproductive territory have least. If the line would be of considerable importance to a competing railway system, the reorganization managers must face the possibility that, in case the bonds are disturbed, the bondholders may bid in the property and sell it to the competing system. In other words, the strategic importance of the line to the reorganized railway is affected by the answer to the question, What would, or could, the bondholders do if they assumed control of the property? If the line could exist independently, the bondholders must be treated liberally; if the line would be of no value independent of the reorganized company, then the bondholders can be counted upon to accept any reasonable offer made to them.

Generally speaking, there are three classes of the underlying bonds, arranged according to the fundamental earning capacity and strategic importance of the lines by which they are secured. There are first the old underlying first mortgage bonds on the main line. These are of primary importance to the system; in fact, without these lines there is no railway system at all, merely unconnected branches. Not only does traffic arise on these main lines, but over them moves the branch line business. The second class includes the later mortgages on the main line divisions—the class just described—and the liens on important branch lines possessing an assured independent earning capacity and considerable, though not essential, importance to the system as a whole. The third class includes the first and subsequent mortgage bonds on unimportant branch lines. Such lines will have failed to earn their fixed charges, and are, from any point of view, of little value to the system as a whole.

In arranging a proper basis of exchange between the old underlying bonds and the new securities to be given in order to refund

them, great care must be exercised that these differences are recognized. In each case the offer of exchange must be sufficiently liberal to guard against the need for large amounts of money to settle with the non-assenting bondholders,[6] yet not so liberal as to defeat the essential end of the reorganization by overburdening the new company with fixed charges. Each class and each issue must be evaluated by itself.

In rare cases, especially if there exist one or two small, main line issues, these underlying bonds are paid off in money.[7]

If one or two of these issues bear low interest rates, or mature shortly, they are allowed to remain undisturbed.[8] Ordinarily,

[6] In order to bring the property covered by underlying bonds completely under the cover of a new general first mortgage bond issue, when some of the underlying bondholders refuse to come into the reorganization, it is necessary to foreclose the mortgage. The recalcitrant bondholders are then paid off their proportion of the price realized at the foreclosure sale. It is invariably less than par. In the last Pere Marquette reorganization there were ten underlying and divisional issues. All the bonds of two issues were exchanged, the trustees being able to cancel the issues without foreclosure. Less than 3 per cent of all the underlying and divisional bonds were undeposited and had to be paid in money.

[7] Thus in the thoroughly comprehensive reorganization of the Northern Pacific Railroad in 1896 two small main line issues were at first undisturbed and then paid off in money. Together they represented about two million dollars—$1,834,500 Missouri Division 6's (1879-1919) and $369,000 Pend d'Oreille 6's (1879-1919), whereas the property involved in the reorganization exceeded two hundred million dollars.

Ordinarily these small, underlying, high interest rate bonds are worth well above par; and reorganization managers have, in the past, been accused of allowing a default in interest so as to force the holders to accept the payment of their bonds at par. This particular procedure was very vigorously condemned by the editor of the *Commercial and Financial Chronicle* in 1896, when many of the comprehensive reorganizations of the middle nineties were being discussed. "When," in the words of this financial observer, "these old underlying mortgages bear a high rate of interest and have also a good many years to run to maturity, there is of course an obvious advantage to a company in paying them off and replacing them with obligations bearing a lower rate of interest. In such a case it is difficult to resist the conclusion that the default has not been made with design or is not being purposely continued in order to force the holders to consent to the paying off of their bonds or to make concessions which it is not needful or right that they should make."—*Chronicle,* vol. 62 (March 21, 1896), p. 525.

[8] Various reasons exist which justify the continuation, undisturbed, of a few of the old issues. Sometimes these issues are so small that it seems inexpedient and too expensive to induce the holders to exchange them. Thus in the comprehensive reorganization of the Erie in 1895 none of the old underlying issues of the original New York and Erie Railroad were dis-

however, even when the issue is of the highest grade of main underlying bonds, the reorganization managers will refund them into a new first general mortgage by offering their holders special inducements.[9] If the new general first mortgage bond issue carries

turbed. Many of these bonds were held in England, many were in the treasuries of insurance companies. All of them commanded a high credit as investment securities, so that it would have been very difficult, if not impossible, to have induced their holders to have exchanged these underlying bonds for any of the second rate securities of the new Erie Railroad, created at the reorganization. Similarly, in the last reorganization of the St. Louis and San Francisco Railroad in 1916, an issue of $9,000,000 underlying first mortgage bonds of the original St. Louis and San Francisco Railway, issued in 1881 and due in 1931, were not disturbed. They had not been disturbed in the previous comprehensive reorganization of the St. Louis and San Francisco Railway in 1896.

Sometimes the underlying issues are destined to mature in a few years, and the saving in interest, through refunding them, will not compensate for the trouble and expense involved. In the numerous comprehensive reorganizations of the middle nineties, these underlying bonds were, for the most part, refunded. This is indicated by the statistics of the fifty-seven reorganizations studied by Meany. They involved approximately $1,250,000,000 of bonds of all descriptions. Of these, less than $200,000,000, or 15 per cent only, were undisturbed.—*Poor's Manual of Railroads,* 1900.

9 If the securities outstanding upon the main line section are all out of proportion to the earning capacity of the physical property, then there must be a severe cutting down not only of fixed charge bonds but also of the stocks given as a bonus. This is illustrated in the refunding of securities of one of the affiliated Erie companies in the last Erie reorganization. At the time this affiliated line was called the New York, Pennsylvania and Ohio. It had been chartered in 1858 as the Atlantic and Great Western to unite certain small lines in and about Meadville, Pennsylvania, and ultimately became a very important main line link in the Erie's New York-Chicago system. It was financed by a Spanish French nobleman and English capitalists brought into the project by James McHenry, famous in the later history of the Erie railroad. It was a failure from the beginning, although its history, under the administration of McHenry, Gould, and General McClellan, form one of the most dramatic recitals in the history of American railroad promotion. It was successively leased to the Erie, and in the hands of receivers continuously. In 1894 when it finally became an integral part of the Erie system, its capitalization was at the rate of $395,000, a mile—about all of which had been contributed by foreign capitalists. Its reorganization involved one of the most extreme sacrifices which foreign bondholders of a prominent American railroad have been compelled to undergo. The first mortgage bondholders received 20 per cent in new first general 4 per cent mortgage bonds and 27 per cent in stocks. The second mortgage bonds were given only 20 per cent in common stock—then valued on the market at less than $10 a share. Finally the common shareholders of this unfortunate "main line" division were offered 1 per cent of their principal in this same common stock.

a lower rate of interest than these old underlying issues, as is very probably the case, the bondholder must be offered an increase in principal to equalize or compensate for the lower interest rate.[10] Quite often he is offered in addition a bonus of new preferred stock so that, should the reorganized railroad prove successful, he will receive an actual increase in income.[11]

Underlying bonds of the second class, later liens on the main lines and first liens on the important branch lines, can be treated much less tenderly than bonds of the previous class. The holders of this second class can be forced to undergo some sacrifice, because they will recognize that even if they can make their properties pay, should they attempt to operate them independently, it will involve large expense and much trouble. Consequently, they will refund their bonds if the offers of the reorganization

[10] This has been necessary in practically every comprehensive reorganization. The treatment of the underlying bonds in one of the recent comprehensive reorganizations is seen from the table given presently. But the practice was common in the great comprehensive reorganizations of the middle nineties, as these three cases indicate:

Name	Percentage of new bonds	Saving in interest rate (per cent)	Net reduction in fixed charges (per cent)
Norfolk & Western adjustment mortgage 7's......	130	3	1.8
Northern Pacific			
First mortgage 6's......	135	2	.6
Second " "	118½	2	1.3
Third " "	118½	3	2.5

In the case of the Baltimore and Ohio reorganization, the holders of some of the underlying bond issues were offered the principal in low (3½ per cent) first mortgage bonds, and a bonus of 12½ per cent in second mortgage 4's. The exact result was therefore very difficult to compute.

[11] A good illustration of the principle is the treatment of the underlying 6 per cent first mortgage bondholders in the old Toledo, St. Louis and Kansas City reorganization. There was due on these bonds 30 per cent of unpaid interest, yet the earnings of the road were ample to meet the current interest on the bonds. Clearly, the bondholders would expect that their unpaid interest should be paid, yet so much new money was required to meet the necessary charges that it would have been practically impossible for the stockholders to secure the necessary money. A compromise was necessary. The bondholders were given 100 per cent in new 3½ per cent prior lien bonds and in addition 62½ per cent in new 4 per cent second mortgage bonds, and 30 per cent in new preferred stock. By this arrangement they would receive the same stipulated income, $60 a year, but the principal of their bonded lien was increased and the bondholder had the opportunity of an increased income should the reorganization prove successful.

committee are at all reasonable. It is possible, therefore, to count on a slight reduction in fixed charges from this class of bondholders.

The third class of underlying bondholders can be treated very arbitrarily. Their properties have little value. Under no stretch of the imagination could they be made profitable if operated independently. In extreme cases they will not even be admitted into the reorganization. At most they will be given only a small percentage of new fixed charge bonds; and ordinarily they will be offered contingent charge securities such as income bonds, preferred stock, and common stock. Under any circumstances the refunding of this class of bonds will effect a conspicuous saving in the new fixed charges.

These principles can be understood from the detailed study of the refunding operation in one of the recent comprehensive reorganizations, that of the Pere Marquette Railroad in the autumn of 1916.[12] In this reorganization all[13] of the underlying and divisional bonds were refunded into a single issue of general first mortgage bonds—part of which bore 5 per cent interest and part 4 per cent. There were in all eleven separate issues of underlying and divisional bonds, aggregating $26,314,000[14] and carrying fixed charges to the amount of $1,268,160, or an average of 4.8 per cent. These eleven issues occupied very different strategic positions, both with respect to the status of their lien and the geographical position of the section of the railway securing them. The earning capacity of the branch lines varied also. With these differences, it is possible to classify these eleven issues into the three classes described in an earlier paragraph.

As a result of the process of refunding, the principal of these underlying and divisional issues was reduced by five million dollars and the fixed interest charge from $1,268,160 to $982,140, a reduction in charges of over 22 per cent.

Leaving now the whole class of underlying bonds, in the refunding of which no great saving in fixed charges can be anticipated, we come to the second level of bonds, that represented by

12 Throughout this discussion the Pere Marquette reorganization of 1916 is used as an illustrative case. It is the most thoroughly typical of any of the recent reorganizations of Class I.

13 Except for two small issues covering 199 miles of a Canadian subsidiary.

14 In this paragraph and in the tables pertaining to it, no cognizance is taken of the unpaid coupons. These were, for the most part, refunded into the same kind of security as the principal of the bond. A consideration of them, however, merely introduces complexities.

the first mortgage liens covering the entire system. The problem of dealing with these bonds presents no such complexity as that attending the refunding of the underlying and divisional liens. If, as is quite often the case, the interest charges on these bonds were fully earned before and during the receivership, they must be treated with a full consciousness of the strength of their position. As the mortgage covers the entire road, these bondholders would have the power to foreclose their lien on the whole system and put through a reorganization of their own which would exclude both the junior bondholders and all the stockholders. They cannot, therefore, be asked to endure much of any sacrifice, although they can be counted on to coöperate in the simplification of the financial structure of the new road by refunding their bonds. Generally, however, the interest on these general first mortgage bonds was only partially earned before and during the receivership. In this case the bonds are refunded into a fixed charge bond and a contingent charge income bond or stock, the proportion depending on the relative strength of the old bonds.[15] In the extreme cases in which the interest on these general first mortgage bonds was not earned during the receivership, they are invariably refunded into a contingent charge security. Usually this is a preferred stock, ranking after the security given for the stockholders assessments.[16]

15 This is well illustrated by the comprehensive reorganization of the St. Louis & San Francisco in 1916. Following the underlying and divisional liens there were $68,500,000 first general mortgage bonds bearing 4 per cent interest. These were refunded into 75 per cent prior lien 4's—the issue that became the first mortgage or the entire system and the same issue that was given for assessments and used to refund the underlying liens—and 25 per cent of a first income 6 per cent bond, the issue next following the prior lien mortgage. Although the interest on the income bonds was contingent on earnings, the current earnings of the road gave good assurance that the first income bond interest, at least, would be paid. This being the case, the holders of the old bonds would receive a slightly greater investment return, 4½ per cent instead of 4 per cent; but 1½ per cent was contingent.

16 This was exactly the plan pursued in the other recent comprehensive reorganization, that of the Pere Marquette. The reorganization could very well be drastic because, by inordinately large depreciation charges on rolling equipment the receiver had worked out an operating ratio of 106 per cent in 1914! Nevertheless, even if less rigorous charges to depreciation and repairs had been made the operating ratio would be considered about 90 per cent, and the 10 per cent available for interest charges was fully absorbed by rentals and the interest on receiver's certificates and underlying and divisional liens. Consequently the first general mortgage bonds ($8,382,000 consolidated 4's of 1951) were required to accept their principal and unpaid coupon interest at par in new second preferred stock—the security ranking directly after a first preferred stock given for the stockholders' assessments.

The commonest method of dealing with these first general mortgage bonds is to refund them into a mixture of fixed and contingent charge securities, as described in the preceding paragraph,[17] because there is usually grave doubt whether or not, had adequate depreciation and maintenance charges been made, the interest on this level of bond had been rightfully earned. When this method of refunding is used, a sense of fairness demands that the volume of contingent charge securities given to offset the reduction in fixed interest shall be such that if the earnings of the reorganized road prove to be so large as to have warranted the payment of the old rate, then the payments in these contingent charge securities will more than make up the balance. That is, if an old 5 per cent first mortgage bond issue is refunded into 4 per cent bonds, par for par (or into bonds bearing the same rate but with reduced principal), then in addition the old bondholders should be given enough preferred stock or income bonds to amount, when the contingent charge is paid, to more than the reduction in fixed income return. This acknowledges that the first mortgage bondholder, by accepting part payment in a contingent charge security, becomes at least partially a partner in the fortunes of the enterprise. As he accepts a share of the burden of low earnings, he should be given a chance to profit through increased earnings.[18]

17 This was almost invariably the method of treating this level of bonds in the comprehensive reorganizations following the panic of 1893. The actual working out of the procedure, in a rather complicated case, is shown by the final reorganization plan of the Baltimore & Ohio. Details in *Chronicle,* vol. 66, p. 1,235; enlightening summary given in S. Daggett, *Railroad Reorganization* (1908), pp. 24-27.

18 This was illustrated in the refunding of the general first mortgage bonds in the St. Louis & San Francisco reorganization. (See note 15.)

Perhaps the best illustration of this principle on a large scale is afforded by the second Atchison reorganization. The first reorganization of 1888 and the second reorganization of 1895 were actually the successive parts of a single comprehensive reorganization, the first part refunding the underlying and divisional issues and the second part accomplishing a permanent reduction in fixed charges and the collection of new money from the junior security holders. At the time of this second reorganization, the net earnings, as corrected by Stephen Little, were less than six million dollars. The rentals, underlying bond charges and interest on the first general 4 per cent mortgage bonds slightly exceeded this. Consequently the fixed charge on these first general mortgage bonds must be reduced. This was done by giving the bondholder 75 per cent in new first general 4 per cent mortgage bonds and 40 per cent in 4 per cent income bonds. The holder of a $1,000 bond had his fixed income reduced from $40 to $30, but he was given an opportunity to receive $16 more if the earnings exceeded the interest on his own first gen-

The third class of security to be considered in a comprehensive reorganization is the heterogeneous mass of junior securities subsequent in position to the general first mortgage bonds. They may include the consolidated and refunding mortgage bonds, the debentures, and the short-term notes. It is at this point that the greatest saving in fixed charges is invariably made, for the reorganization plan invariably provides that these bonds shall be changed, in large part at least, into income bonds or preferred stock. The accomplishment of this, however, in actual practice involves delicate problems of adjustment. On the one hand, the volume of these contingent charge securities offered in exchange for the junior liens, debentures, and notes, must be sufficiently liberal to induce the holders to accept the exchange, else they will obstruct the course of the reorganization or force the committees to purchase their interest, however small it may appear to be; on the other hand, the volume offered must not be so large as to absorb any equity remaining to those securities offered to the stockholders, else the latter will not accept the reorganization plan and the requisite new money will not be forthcoming. Between this Scylla and Charybdis, the reorganization committee must steer its course. And the matter is to be decided solely on the basis of the exigencies of the situation. If the failure is very serious, as in the case of the Pere Marquette, not only are no fixed charge bonds given for this level of junior bonds, but the holders are required to pay an assessment and take, altogether, only preferred and common stocks in the new company.[19] Whereas if the failure is not so serious these bondholders may even be given a small proportion of their lien in new fixed charge securities. This was the plan followed in the other recent comprehensive

eral mortgage bonds. The exchange made the old fixed charge bondholder a partner in the fortunes of the reorganized Atchison system to the extent that he might be called upon to endure a loss of 25 per cent in his income in time of lessened earnings, while he stood in the position to gain 15 per cent in his income during periods of large earnings.

19 In the comprehensive reorganization of Pere Marquette (seriousness described in note 16) there were three layers of these junior bonds above the preferred and common stock. Only the uppermost layer ($14,000,000 refunding mortgage 4's of 1955) were offered the privilege of exchange—and this into common stock. The two lower levels ($2,000,000 collateral trust notes and $5,000,000 debentures) were treated exactly the same as the old preferred and common stock. That is they were assessed 9¾ per cent and given 10 per cent in new first preferred and 20 per cent in new common stock.

reorganization, that of the St. Louis and San Francisco.[20] Ordinarily, however, judging from the comprehensive reorganizations of the latter nineties, the holders of these junior securities have been neither assessed, nor given new fixed charge bonds. They have been asked to accept, par for par, a preferred stock or an income bond. In this way, the refunding of them involves no change whatever in the gross capitalization of the road, but does involve the total extinction of the fixed charges previously carried by them. In fact, it is true to say that the major reduction in fixed charges at the time of a comprehensive reorganization of a railway occurs on these levels of junior bonds.

From this analysis, it is possible to summarize the practical expedients observed at the present time for reducing the fixed charges at the time of a thorough and comprehensive railroad reorganization. The old underlying and divisional bonds are refunded into one blanket issue, bearing a lower rate of interest. The ratio of exchange is determined in each case according to the earning power and strategic position of the property covered by the lien. On this level there is little reduction in fixed charges. The general first mortgage bonds are refunded into new general mortgage bonds, with ordinarily some slight saving in charges—the relative amount depending on the margin, if any, of net earnings available to the old general first mortgage bonds. All the bonds junior to these first mortgage bonds are refunded into a contingent charge security, involving the total extinction of fixed charges.

The methods of reducing the fixed charges in reorganizations of the second class—superficial reorganizations following temporary embarrassment or less serious failures—are mere modifications of the methods just described. As the failures of this class are less serious, so the sacrifices demanded of the security holders are less serious. The reorganization is less penetrating; it affects only the superficial layers of the financial structure.

In a reorganization of this class the underlying and first mort-

[20] There was only one bond issue on this level to be dealt with in the last reorganization of the St. Louis & San Francisco,—this $70,000,000 "general lien" 5's of 1927. These bonds were given 25 per cent in new prior lien 4's (the premier security of the reorganized road), 25 per cent in first income 6's and 50 per cent in second income 6's. Although extremely doubtful, still there was a possibility that, even with proper maintenance, something had been earned on these bonds. An allowance of 25 per cent in principal and 20 per cent in fixed income return was an acknowledgement of this possibility.

gage bonds are in no way affected. The railroad, both in the period before the crisis and during the receivership, fully earned the interest on these bonds. But this is not true of the junior securities. The interest on these was not earned and the apparent necessity of paying it precipitated the crisis. At this level, and only here, it is expedient and just to demand a sacrifice. Accordingly, the holders of these junior bonds are asked to refund them into contingent charge securities—income bonds or preferred stock. This involves the total extinction of the obligatory interest. These junior bonds, together with the stocks, are the only securities disturbed in a reorganization of this kind. And the new preferred stocks or income bonds given in exchange are quite as valuable as the old junior bonds, considering the decreased earnings of the road, so that little real sacrifice is asked of any of the bondholders.

Within recent years there have been three reorganizations of this class among important railroad systems. They were the last reorganization of the Wabash in 1915 and the very recent reorganizations of the Chicago, Rock Island and Pacific, and the Missouri Pacific. The plan adopted was exactly the same, except for individual peculiarities and unimportant details. The underlying and divisional bonds were undisturbed. The general first and second mortgage bonds were undisturbed. In each case the decrease in fixed charges was brought about by refunding one or more issues of junior bonds into a preferred stock, having a position just one step inferior to the security given for the stockholder's assessments. That is, the uppermost layer of bonds was refunded into a medium grade stock. Absolutely nothing was done to disturb any of the other layers of bonds.

Reorganizations of small local roads, the third class defined in the opening paragraphs of this article, are invariably very drastic. They follow very serious failures; so serious, in fact, that it is often doubtful whether or not the first mortgage bondholders have much of any real equity remaining to them. As a general rule, the financial structure of these little roads is simple—a single issue of first mortgage bonds and the common stock. As the failure is not admitted until conditions are very serious, the receiver is forced to issue receiver's certificates immediately. By the time the reorganization occurs, it happens not infrequently that about all the value of the railroad, as evidenced by its earning capacity, is limited to these issues of receiver's certificates. Consequently,

when the road is actually reorganized, the burden falls back on the shoulders of the holders of the first mortgage bonds, provided they wish to retain any equity above the receiver's certificates. In extreme cases, even, the holders of receiver's certificates may be called upon to make a considerable sacrifice in order to permit the railroad to continue in operation.

The reduction in fixed charges, although the more permanently important end of a railroad reorganization, must be accompanied by the immediate investment of new money, else the solvency of the new railroad is jeopardized from the very beginning. This new money is required to pay off the receiver's certificates, to settle with the creditors who are unwilling to take new securities, to meet the expenses of the reorganization, and finally to provide a fund to improve and rehabilitate the reorganized railroad.

There are two and only two ways by which this new money can be provided. Junior securities may be sold to the old stockholders who are thus lured into adding to their already bad investment by the promise of securing a stock interest in the new railway corporation; or securities, usually senior bonds, of the new corporation may be sold to an underwriting syndicate of bankers, who in turn offer them to the outside public. In the larger reorganizations following the panic of 1893, only the former expedient was employed. In all the recent important reorganizations, including those of Class I and Class II, both expedients were used.

The use and importance of assessments on old security holders has steadily increased since the reorganizations of the period following the panic of 1873.[21] They are in accord with the general

21 Daggett concludes from the cases examined by him that assessments were more frequent after the panic of 1893 than before (*Railroad Reorganization*, p. 351). This would seem to be borne out by the presumption that the later reorganizations were more drastic than the earlier ones. On the other hand, the statistics of the fifty-seven reorganizations between 1884 and 1899, gathered by Meany, do not seem to support this belief. Of the fifty-seven, seventeen plans were announced prior to January 1, 1894. Of these, thirteen involved assessments on either or both stocks and bonds; of the forty plans announced after 1894, twenty-five involved assessments, or 62½ per cent (*Poor's Manual of Railroads*, 1900). The present writer believes that the generalization of Daggett is correct; and that the opposite conclusion to be drawn from Meany's statistics is due to the fact that he included many small financial readjustments. Many students of the subject, by a confidence in mere ungraded statistics, do not give sufficient attention to the distinction between large and small reorganizations, and the individual conditions of the preceding failure. Certain it is that not a single important railroad reorgani-

tendency to impose drastic sacrifices on the holders of the old securities as the price that enables them to preserve the shadow of their equity.

These assessments arise from the necessities of the road, and their distribution among the different classes of security holders is, unfortunately, treated much more as a problem of expediency than of justice. The fundamental economic and legal distinction between the stockholder and the bondholder is usually forgotten, and it is growing more and more to be the practice of railroad reorganizations to look at the position of all the classes of junior security holders as differing among themselves only in degree and not in kind. And while it is recognized that the common shareholders ought to suffer most in a reorganization, the members of the committee are concerned more with securing the required amount of money, somehow, than with meting out justice in accordance with a more or less obsolete distinction between owner and creditor. The second Atchison reorganization marked the transition from the old theories of reorganization to the new[22] and this very point is excellently illustrated by a circular sent to the junior bondholders at the time. After stating that the amount of money to be raised amounted to $14,000,000, the reorganization committee went on to say:

> The stockholders in the ordinary course should provide the whole of this amount . . . but the proportion of the assessment that would be borne by the stockholders could only be gauged by the amount of assessment that they would be willing to pay in order to protect their rights. This amount is believed to be $10 per share, and it is necessary that the second mortgage bondholders shall provide the remaining $4 for their own protection.

This statement at the time of the last Atchison reorganization embodies the theory of allotment of assessments now universally followed by railroad reorganization managers. The amount of money required is first determined from the reports of the engineers, traffic experts, attorneys, and receivers. The amount of assessment which the common stockholders will stand is then estimated by the bankers, their judgment being guided by both the current market price of the common stock and the probable market price of the new preferred and common shares which the reorgani-

zation has occurred from 1893 down to the assumption of federal control that has not been predicated on a considerable money payment by the security holders. Tables giving assessments in recent reorganizations are given later.

22 This matter was discussed at some length in the first article of this series.

zation managers propose to allot to the common stock. The same processes of reasoning are applied to the old preferred stock. If the amounts which the two classes of stock are probably willing to pay in order to retain an interest in the reorganized railroad are not equal to the amount which must be raised from the security holders, then the remainder is assessed against the junior bondholders. Entirely practical questions fix the relative amounts of assessments. How much does the road need and how much can be drawn out of each class of security holder and how little given in return? In accord with this principle, based on expediency and not on justice, the assessments on the stocks of roads passing through a serious crisis, Class I, are smaller than those on roads suffering from a temporary embarrassment, Class II. The stockholders have less at stake in the former case and can therefore be counted on to contribute less.

In the recent reorganization of the Pere Marquette, illustrative of Class I, these principles are exactly portrayed. In order to secure the requisite amount of money, not only were the three classes of stock required to pay an assessment, but the two classes of junior bondholders were also called upon as well. A preferred stock was offered for the assessment, and only a small bonus of common stock. Under these circumstances, the common and even the preferred stock-holders would be willing to pay only a small assessment. It was fixed at $9\frac{3}{4}$ per cent. Moreover, since little or no value remained to the equity of the junior bondholders, no distinction was made between any of the junior securities. The reorganization managers considered them all equally bad. And if the assessment was placed as low as $9\frac{3}{4}$ per cent, the full requirement of new money could be obtained only as the two outermost layers of junior bonds paid the full assessment, just as if they had been common and preferred stockholders.

In the other recent comprehensive reorganization, that of the St. Louis and San Francisco, a somewhat different means was taken. A valuable security, general first mortgage bonds, (the same issue as that into which the underlying bonds were refunded and the same bonds that were sold to an underwriting syndicate) was offered to the stockholders, for their assessments. Under these circumstances the payment of a large assessment could be counted on, especially as a liberal bonus of common stock was offered with the bonds. Accordingly, the assessment was made 50 per cent, but arrangements were consummated at the same time to

enable stockholders to sell their new bonds so as to reduce the assessment.

In reorganizations of Class II, those following temporary embarrassment rather than serious failure, the assessments to the stockholders are consistently large. As already pointed out, the expediency of these large assessments is based on the presumption that, since the equity remaining to the stockholders is large, they will endure a large assessment in order to preserve it. And, again, because the railroad property has a value well above the bonded debt, the new securities offered in exchange for the assessments and the bonus of common stock can be made very liberal.

The following table illustrates these principles:

ASSESSMENTS IN RECENT IMPORTANT REORGANIZATIONS.

Railroad	Old security assessed	Amount of assessment (per cent)	Amount of new security given for assessment	Kind of new security given for assessment	Common stock bonus (per cent of par of old security)
Reorganizations of Type I.					
Pere Marquette	Collateral trust notes	9 3/4	10	1st pfd. stk.	20
	debentures	9 3/4	10	"	20
	1st pfd.	9 3/4	10	"	20
	2d pfd.	9 3/4	10	"	20
	common	9 3/4	10	"	20
St. Louis & San Francisco	1st pfd.	50	50	prior lien bonds	100
	2d pfd.	50	50	"	90
	common	50	50	"	82
Reorganizations of Type II.					
Missouri Pacific	common	50	50	gen. mort. bonds	100
Rock Island	common	40	40	pfd. stk.	100
Wabash	pfd.	30	50	1st pfd. stk.	50
	common	30	50	"	45
Western Maryland (voluntary)	pfd.	30	30	1st pfd.	100 (in 2d pfd.)
	common	30	30	1st pfd.	100
Wheeling & Lake Erie....	1st pfd.	27	27	pfd. stk.	100
	2d pfd.	27	27	"	90
	common	27	27	"	87½

Taking these important reorganizations as a whole, it appears that the following conclusions may be drawn.

1. In no case was there a difference in the rate of assessment for different classes of securities in any single reorganization.

2. The average rate was approximately 34 per cent, averaging each reorganization as a unit, and a trifle less than 30 per cent,

if each assessed security is considered a unit. Omitting the low assessment on the Pere Marquette securities the average was approximately 40 per cent by either way of computing it.

3. In cases where more than one class of security was assessed in the same reorganization, the security given for the assessment was always the same, and the differences in the allotment of the common stock bonus was negligible.[23]

[23] Were we to compare these reorganization assessments with those of the earlier reorganizations, we should find certain striking differences. In the first place, these assessments are larger; more money is now secured at the time of reorganization than was once. Formerly, especially in the reorganizations preceding the panic of 1893, a painstaking effort was always made to apportion the burden of assessments more nearly upon the relative position of the stocks. The common stockholder was usually asked to pay more than the preferred on the assumption that the burden should rest more heavily on those

TABLE 1.—EARLY REORGANIZATIONS.

Railroad	Date	Old security assessed	Amount of assessment (per cent)	Amount of new security given for assessment (per cent)	Kind of new security given for assessment
New York & Erie (Erie)	1859	preferred	2½	none	none
		common	2½	none	none
Erie Railway...	1877	preferred	2	none	none
		common	4	none	none
		or			
		preferred	3	3	income bonds
		common	6	6	income bonds
Denver & Rio Grande....	1885	common	8		
East Tennessee	1886	income bonds	5	5	1st pfd. stock
		common	6	6	2d pfd. stock
Reading	1886	income bonds	2½	2½	pfd. stock
		preferred	10	10	" "
		common	10	10	" "
Pittsburgh & Western.....	1887	common	4	8	pfd. stock
New York, Chicago & St. Louis	1887	preferred	10	10	1st preferred
		common	10	10	"
Iowa Central...	1888	debentures	2½	2½	debentures
		1st preferred	5	5	"
		2d preferred	10	10	"
		common	15	15	"

Average assessment on preferred stocks.... 5 per cent
" " " common stocks...... 7½ " "
" " " stocks .... 6.3 " "

Assessments on bonds unusual in reorganizations of Classes I and II.

In any reorganization, the practical determination of the amount of an assessment is a matter of great moment. It must yield all the new money required by the reorganization. Yet great care must be taken that the assessment is not so large as to frighten

TABLE 2.—IMPORTANT REORGANIZATIONS OF THE MIDDLE NINETIES.

Railroad	Old security assessed	Amount of assessment	Amount of new security given for assessment	Kind of new security given for assessment
Northern Pacific	preferred	10		
	common	15		
Richmond Terminal	common	10		
Erie (N. Y. L. E. & W.).......	preferred	8		
	common	12		
Baltimore & Ohio........	1st preferred	2	2	preferred stock
	2d preferred	20	20	"
	common	20	20	"
Atchison	second mortgage and income	4	4	preferred stock
	common	10	10	"
Reading	deferred income bonds	4		
	1st, 2d, 3d income bonds	20		
	common	20		
East Tennessee.	1st preferred	3		
	2d preferred	6		
	common	7½		
Union Pacific..	common	15		
Toledo, St. Louis & Kansas City	preferred	20	75	preferred stock
	common	12	25	"
Wheeling & Lake Erie....	preferred	12	12	2d preferred
	common	9	9	"

Average assessment on preferred stocks 9 per cent.
" " " common " 12½ " "
" " " stocks 11 " "
Assessment on bonds unusual in reorganizations of Classes I and II.

who would reap the largest benefit from pronounced success. The amount and the character of the assessments in the older reorganizations can well be illustrated from a series of tables of important reorganizations at different periods of financial history. The lists are in no sense exhaustive, although it is believed that the tables cover a fair random selection of important reorganizations.

Meager though these statistical tables may appear, they afford excellent material for exhibiting historical contrasts and the direction of the current

the stockholder into relinquishing his interest. To prevent this, the presumptive value of the new securities must be at least a little greater than the market value of the old stocks, together with the assessment, else the stockholders will voluntarily allow their interests to die. Unless the equity remaining to the junior security holder is considerable, the assessment should be just large enough to induce its payment.[24] If the equity properly belonging to the stockholders is large (the embarrassment being easily attributed to specific and easily remedied causes—reorganizations of Class II, as heretofore defined), a very heavy assessment may be levied on the stockholders, as in the reorganization plans of the Missouri Pacific and Rock Island railroads in which the stockholders were asked to contribute $50 and $40 a share respectively.

in financial opinion concerning reorganization assessment. In the first place, it is unquestionably clear that the tendency has been toward increasing the amount of assessments. Of the eight representative reorganizations prior to the panic of 1893, the average assessment was only 6 1/3 per cent—and the assessments levied on the common stocks were conspicuously higher than on the preferred stocks and junior bondholders. A distinct effort was made to apportion the burden in accordance with the priority of the risk. Among the reorganizations of the nineties, the average assessment was 11 per cent, and there was less difference between the assessments on the different classes of stocks. Finally, among the recent important reorganizations (table given on page 297), the average assessment was 34 per cent; in fact, in two large and important reorganizations the assessment was 50 per cent. The tendency, too, is to apportion the assessment more evenly among the various junior security holders.

There seems to be little change in regard to the kind of security given in return for assessments. Except in rare, but rather conspicuous, instances, the new corporation gives the full par value of the assessment in a contingent charge security having first claim after the fixed charge bonds. This preferred stock or income bond is ordinarily the prior contingent charge security, so that it has a first claim on any surplus earnings above those necessary to meet the fixed charges of the new corporation.

24 An excellent example is offered by the Wabash reorganization plan of April, 1915. Quotations are taken as average for a period of several weeks surrounding the announcement of the plan.

Stock	Market value of old shares	Money assessment	"Curb" quotation for the allotments of first preferred and common stocks received for the assessment ($48 for 1st pfd. and $14 for the common)
Common	.75	$30	$30.30
Preferred	1.37	30	31.00

But great care must be exercised that the assessment is not too large, else litigation will result;[25] or, at most, the stockholders will drop out.

The possibility of a dispute with dissenting stockholders may sometimes be avoided—especially in the case of less serious failures, where large amounts of new money are not essential to a successful reorganization—by giving the common stockholder the option to receive a small amount of new common stock without the payment of an assessment, or to pay an assessment and get more liberal amounts of new securities.[26] The apportionment of the assess-

25 In the reorganization of the Houston and Texas Central (1888), the stock was assessed over 70 per cent—the highest assessment of which the present writer has learned; but serious and long protracted litigation resulted. The plan was first announced covering exchanges for all the bonds. It was accepted by all the bondholders, who, considering that the new bonds were guaranteed by the Southern Pacific Company, were actually benefited by the reorganization. The first announcement contained no stipulation concerning the stock assessment. Some three months later it was announced to be 40 per cent and still later 73 per cent. Protracted litigation resulted, in the courts of Texas and New York. Ultimately, a compromise was effected with the dissenting stockholders.

26 Strange to note, the alternative of paying or not paying an assessment is confined to the two extremes—very mild, usually voluntary, readjustment reorganizations, and very drastic reorganizations in which all the junior security holders are eliminated. (Class I and especially Class III, to be discussed presently.) But there are specific reasons to account for this anomaly. In the case of the less serious reorganizations, merely readjustments, no foreclosure sale of the property is contemplated. The stockholders cannot, therefore, be forced into paying the assessment. All that can be done is to cajole them into paying it by offering a more liberal amount of new securities than if they refuse. The following examples illustrate this:

Railroad	Old security assessed	Amount of assessment	New securities
Minneapolis & St. Louis..	common	$20	$78 in common stock
	"	none	22 " " "
	preferred	$20	80 " " "
	"	none	70 " " "
Western Maryland	common	30%	(*Per cent*) 45 in valuable coal company stocks 30 " 1st preferred 100 " common
	common	none	100 " common only
	preferred	30%	45 " valuable coal company stocks 30 " 1st preferred 100 " 2d "
	preferred	none	100 " 2d preferred only

ment between the holders of the common and preferred depends on expediency entirely.[27] Presumably the preferred stockholder is in a stronger position than the common stockholder, but experience has shown that he will be compelled now[28] to bear quite as much of the burden as the common stockholders.[29] Sometimes, although not very often, the assessment on the preferred stock is greater than on the common,[30] on the assumption that the preferred share-

At the other extreme, the very drastic reorganizations are usually consummated through foreclosure by the underlying or first lien senior bondholders. To make the reorganization effective, and to reduce the payments to the non-assenting bondholders, most, if not all the bonds should be brought into the reorganization plan. This can be done best by offering an alternative consisting of a liberal participation to those electing to pay an assessment, and a smaller allotment of new securities to those who do not.

The following examples illustrate this. They are all Class III reorganizations. The principles governing the assessments on this class will be discussed presently. All securities, junior to the first mortgage bonds, were wiped out in every case.

Railroad	Assessment	New securities given (per cent)		
		1st lien security	2d lien security	Common stock
Gulf, Florida & Alabama	25	50	25	25
	none	10	10	10
New Orleans, Texas & Mexico	20	20	50	50
	none	0	40	25
Western Pacific	36	40	55	45
	none	0	12½	50

27 Daggett is in agreement with this view when he says with reference to the reorganizations since 1908: "In most instances referred to, common and preferred stock fared alike or so nearly alike that the differences were negligible." "Recent Railroad Failures and Reorganizations," *Quarterly Journal of Economics,* vol. 32 (May, 1918), p. 477.

28 The contrast between contemporary and past reorganization theory in this particular is brought out in note 23.

29 This principle is recognized by practical observers of reorganizations, especially by the professional trader who seeks to profit by the wide fluctuations in security values before and after a reorganization. For example, during the autumn of 1914, when the Pere Marquette was in the hands of receivers, a shrewd trader in Boston offered to give 100 shares of the preferred stock in exchange for 100 shares of common and a bonus of $100 in money. He believed that in any reorganization the common would fare as well as the preferred stock, and he would have $100 to his advantage. Unfortunately, for our sense of abstract justice, he was right.

30 The Toledo, St. Louis and Kansas City reorganization required $20 a share from the preferred stockholders and $12 a share from the common.

holder, having more at stake, will endure more without throwing away his security. In no recent case was the assessment on the preferred stock less than on the common. This principle is unfortunately unjust, but reorganizations are guided by expediency and coercion and not by abstract justice.

The discussion of assessments in reorganizations of Class III was purposely omitted from the summaries just given. Each reorganization of this type represents the effort to rehabilitate a small road after a very drastic failure. It is invariably done by the first mortgage bondholders, who alone have any value remaining to their securities. If the road is on the whole profitable, provided the immediate cause of its failure is removed, it may be possible to effect a reorganization without an assessment on the bondholders. In such cases the bondholders merely surrender a part or all of the fixed return on their security, in order that the reorganized road may divert the net income, that would otherwise go to pay interest charges, to its rehabilitation.[31] Ordinarily, however, new money must be had and the first mortgage bondholders alone have sufficient interest in the property to be willing to undergo even a slight sacrifice in order to maintain the existence of the railroad. Such cases are illustrated by a few recent reorganizations of Class III.

The radical failure of these little roads is apparent from this table, without further explanation. In one case, the holders of receiver's certificates were actually assessed.[32] All the arts of finan-

[31] A thoroughly typical case of a reorganization of a Class III road following just this plan is that of the Buffalo and Susquehanna Railroad. This road was built in the middle nineties to reach certain coal fields in northern Pennsylvania. It was fairly successful. In 1907 the Buffalo and Susquehanna Railway, the connection to Buffalo, leased the Railroad. The Railway defaulted on its rental in 1910, and the Railroad soon after defaulted on its bond interest. A receiver was appointed for the Railroad, who, through excellent management, proved that the Railroad alone, without the Railway, was a successful enterprise. In the reorganization, the bondholders were merely asked to surrender 30 per cent in principal and interest of their bonds, in return for liberal bonuses of preferred and common stocks. No assessments were levied on the bonds, because the sale of a small amount of the bonds of the new road, and its normal earnings, would meet fully the costs of the reorganization and the rehabilitation of the road.

[32] Besides the unfortunate Detroit, Toledo and Ironton case, a few other cases exist in which the holders of receiver's certificates were required to undergo a sacrifice. In the reorganization of the Atlanta, Birmingham and Atlantic Railroad in 1914, the holders of $4,476,000 receiver's certificates were required to accept a junior lien 15-year income bond. It is interesting to note

RECENT REORGANIZATIONS OF SMALL ROADS (CLASS III).

Railroad	Old security assessed	Amount of assessment	Amount of new security given for assessment	Kind of new security given for assessment
Cincinnati, Indianapolis & Western	1st mortgage bond	30	30	1st mortgage bonds
Detroit, Toledo & Ironton	receiver's certificates	25	41⅔	income bonds
	general lien bonds	35	58⅓	"
	consolidated bonds	10	16⅔	"
Gulf, Florida & Alabama	1st mortgage bonds	25	25	receiver's certificates
Oklahoma Central.	1st mortgage bonds	40	40	1st mortgage bonds
New Orleans, Texas & Mexico....	1st mortgage bonds	20	20	1st mortgage bonds
Wabash, Pittsburgh Terminal	1st mortgage bonds	30	30	preferred stock
Western Pacific...	1st mortgage bonds	36	40	1st mortgage bonds

cial persuasion[33] were used to stimulate the interest of the recalcitrant bondholders. In many instances, the bondholders failed to subscribe, preferring to lose their original investment rather than to meet a heavy assessment and thereby acquire securities of doubt-

that in both the Detroit, Toledo and Ironton, and the Atlanta, Birmingham and Atlantic cases the holders of equipment obligations were paid off at par—in the latter case at the time of reorganization, and in the former case through the liquidation of the equipment. Equipment obligations are invariably paid, or left undisturbed at the time of reorganization. For discussion of treatment of equipment obligations see a study of the subject in AMERICAN ECONOMIC REVIEW, vol. VII, June, 1917, p. 353 ("Railroad Equipment Obligations," by A. S. Dewing).

33 One unusual and ingenious instance of personal advantage dangled in the face of the bondholders in order to induce them to pay an assessment is afforded by the reorganization of a little road called the Nevada Central in 1888. In the reorganization there were issued no fixed charge bonds, but only 1st mortgage 5 per cent non-cumulative income bonds—due in fifty years. If, however, any bondholder would pay an initial assessment of 12 per cent on the par value of the bonds, a corporation known as the Nevada Company of New Jersey agreed to guarantee the payment of the semi-annual interest during the last forty years of the life of the bond.

ful value in an enterprise which had shown itself to be a failure.[34]

Whether obtained through the assessments on the old security holders or through the sale of new securities to the public, it is necessary for responsible parties to insure that the new railroad corporation receives the money expected. This is done by the underwriting reorganization syndicate, an important and necessary corollary of practically every reorganization plan. Formerly, the "reorganization trustees" were clothed by stockholders, creditors, and the courts, with sufficient power to superintend the reorganization and secure for the corporation sufficient money. But as one of the two ultimate purposes of every reorganization is to secure liquid capital for the new corporation, no reorganization can be

[34] A good illustration of this is the reorganization of the Wabash Pittsburgh Terminal Railway. This little road was built as the Pittsburgh link in a prospective Gould transcontinental system of railroads. The property of the company represented an actual investment of $46,000,000, of which over $28,000,000 represented the cost of the terminal in Pittsburgh, and a short section of 60 miles of road forming a junction with the Wheeling and Lake Erie Railroad and some equipment. The remainder represented the cost of investments in coal properties, a belt line, and the controlling interest in the stock of the Wheeling and Lake Erie Railroad. To finance these expenditures, reputable New York banking firms sold $30,000,000 of the first mortgage bonds at approximately 91½. They were acquired by investors throughout the East; in fact, trust funds such as those of educational institutions were placed in them. Some $20,000,000 second mortgage bonds were also sold although they were of an admittedly speculative character. In 1907, with the collapse of the Gould aspirations for a transcontinental railroad system, the Wabash Pittsburgh Terminal Railway passed into the hands of receivers. For upwards of eight years it was operated in an extremely inefficient manner by receivers. The gross and net earnings fell off each succeeding year; the first mortgage bonds declined to a value of 1—$10 for a $1,000 bond; and second mortgage bonds became practically worthless—$1.25 for a $1,000 bond. Finally, in 1915, a plan of reorganization was announced involving the assessment of $300 on the first mortgage bonds, the holders to receive only non-cumulative preferred stock of a new company in exchange for their assessment. The second mortgage bonds were entirely eliminated as well as the stock. One firm of Wall Street brokers wrote to their customers: "If our surmise proves to be true, it will not pay the bondholders to throw good money after bad. Better let the property go on the auction block for what it will bring as junk and real estate. If this is done, it may happen that the bondholders will get more than two cents on the dollar." (Schmidt and Gallatin, *Weekly Review,* July 2, 1915.) A very large proportion of the bondholders refused to pay the assessment, preferring to see the extinction of their original investment. When this plan was announced, an editorial writer of the New York Times *Annalist* remarked: "The experience of these particular bondholders goes to show how very little indeed there is in a name."—*Annalist,* vol. 6, (July 5, 1915), p. 3.

carried through, no matter how just, unless the sources of new money or new credit are certain. Even though an assessment is imposed on the old stockholders, there is no necessity that they will pay the amount; in fact, it is sometimes quite uncertain whether or not any large proportion of the stockholders of a road whose shares are selling for less than ten dollars a share, will pay an amount greater than the market value of their shares. Although the acceptance of a reorganization plan by a committee of large stockholders may give an assurance that a goodly proportion of the assessments will be paid, the attitude of the rank and file of the stockholders will remain unknown until the plan of reorganization is actually put into execution. Meanwhile, the corporation must be assured that in any event the new money will be available. And, further, the willingness of the members of the syndicate—usually represented by prominent bankers—to furnish money to the new corporation, gives a sentimental support to the justice of the reorganization much greater than the exhortations of the reorganization committee.[35] It is this moral support of the reorganization, often quite as vital as the financial support, that justifies the expense and importance of the syndicate.[36] And in the matter of financial support a syndicate may guarantee the payment of the assessments by the security holders, and it may purchase outright an issue of new securities to be sold to public investors in the open investment market.[37] So important, indeed,

35 It was the success of the late J. P. Morgan in formulating reorganization plans which gradually gave him such a position, during the railway readjustment of the nineties, that his name in connection with any reorganization carried more weight than that of any other banker. As a result, all the important railroad reorganization syndicates, with the exception of the Atchison and the Union Pacific, were managed by the banking house under his control.

36 Frequently, also, the support of the credit of the new company in the stock exchanges and among the "curb" brokers and "specialty" houses is a matter of great importance. It takes tangible form in the efforts of the underwriters to support the market for the reorganized company's new securities. When a security has any value, trading in it is inevitable. Once the bonds of the new company have been issued, a market will be formed for them, somehow, by those who are forced by circumstances to realize on them before the road has begun to reflect the results of its rehabilitation. The syndicate cannot let the bonds go begging on the market among the curb brokers. Such a course would do lasting injury to the credit of the road and themselves. They must be ready to "hold the basket."

37 The various purposes of an underwriting syndicate are well stated in the reorganization plan of the Baltimore and Ohio Railroad. An outline is given in Daggett, *Railroad Reorganization,* p. 346.

are these underwriting syndicates that almost without a single exception, every railroad reorganization of even medium importance consummated since 1890 has been supported by an underwriting syndicate.

A syndicate of some form guarantees the payment of the assessments levied on security holders in practically every reorganization[38] and unless the terms offered the stockholders are very onerous, bankers can always be found to underwrite these assessments for a reasonable commission. The syndicate agreement takes the form of an obligation on the part of the incorporators or others responsible for the new railroad to pay the syndicate either a net commission on the entire aggregate assessment or else a round sum, in the form of a fee. In consideration of this commission or fee, the syndicate contracts to assume the place of any assessed security holder who refuses to pay his assessment. This implies that the syndicate will pay the assessment of the defaulting security holder, and take over the securities of the new corporation allotted to him. As a result of the foreclosure sale, the rights and interest of the defaulting security holder in the new corporation are extinguished.

The ease with which a reorganization committee may secure the underwriting of its plan, and the amount of commission or fees demanded from the new corporation will depend on the amount of risk involved. But, unlike other underwriting syndicates where the payment of money is insured, the syndicate managers can obtain a fairly accurate idea of the extent of the stockholders' probable payments. If they feel that in any plan suggested to them a very large proportion of the old security holders will fail to meet the assessments, the syndicate managers will insist that more liberal terms be offered. If the failure is severe, the old stocks commanding only a nominal market value, and if considerable assessments have to be levied on the old security holders, it may happen that no bankers can be found who will consent to arrange an underwriting syndicate. In such cases, junior bondholders are forced into assuming the status of an underwriting syndicate in

38 Of course there are exceptions. The securities given in the recent Pere Marquette reorganization, in return for assessments, were thought to be so valuable that the reorganization managers believed that they could sell the securities of a defaulting bond and stockholder for the amount of the assessment. Hence they did not feel justified in paying a syndicate a commission for underwriting the assessments. But they did pay a syndicate a "commission" for purchasing some of the bonds.

that their participation in the reorganization is made conditional upon their willingness to guarantee the stockholders' assessments. Under these circumstances, the junior bondholders have divided among them the unpaid stock assessments and take over, in corresponding proportions, the new securities to which the defaulting stockholders would have been entitled.[39]

The other important service of an underwriting syndicate at the time of reorganization is the direct purchase of a considerable block of securities of the new corporation. Ordinarily, these securities occupy the status of a general mortgage bond, senior to all the new securities issued at the time of reorganization, but junior to the first, prior lien, and divisional bonds left undisturbed by the reorganization.[40] In fact it may even be said that there has been no large and comprehensive railroad reorganization during the last decade which has not involved the purchase of new securities by a syndicate of bankers as well as the guarantee of the payment of the stockholders' assessments.[41] These purchases are ordinarily made by the same syndicate that guarantees the payment of the stockholders' assessments,[42] the two transactions being regarded as part of one agreement.[43]

39 Such a case is excellently illustrated by the last Wabash reorganization. There were outstanding a little over $40,000,000 junior bonds known as "first and refunding fours." These were to be refunded into second preferred stock at a ratio of 120 per cent. But at the same time, these bondholders were required to assume the payment of the assessments for the delinquent common or preferred stockholders. If all the stockholders paid their assessments, the bondholders would not be assessed; but if none of the stockholders paid, their participation involved a maximum liability of $682.76 for each $1,000 bond. These bonds were then selling at $200 in the open market.

40 Such statements are, assuredly, subject to many exceptions. Sometimes the underwriting syndicate will buy for money, even the common stock of the new railroad. For illustration, in the very drastic reorganization of the Atlanta, Birmingham and Atlantic in 1916, the entire common stock was wiped out, and no attempt was made to levy any assessments on any securities. New money was obtained by the sale to a syndicate of the common stock of the new corporation at $12 a share, subject to a commission of 6 per cent in cash.

41 The combination of the two functions was very common in the middle nineties, but not quite to the extent that it is now. Of fourteen typical reorganizations studied by Daggett "four provided cash by assessment, three by the issue of securities and five by a combination of both methods."—*Railroad Reorganization*, p. 351.

42 Cases are by no means uncommon in which a banker or syndicate guarantees the stockholders' assessments and an entirely different one buys a block of new first or general mortgage bonds. Such cases, however, inevitably

The compensation of the syndicate and its managers may consist of at least three different emoluments. It will be able to buy the new first or general mortgage bonds for less than the true market value, usually a discount of about 5 per cent. It will receive in addition a reasonable rate of interest and a commission on the actual money advanced during the reorganization.[44] It will also receive a considerable bonus in the form of new preferred[45]

lead to one banker or syndicate taking the lead, and analysis of the case will usually develop the fact that one of the bankers or syndicates is acting under the direction of the other.

43 The Baltimore and Ohio Railroad reorganization of 1898 had a composite agreement of this character illustrative of the somewhat elaborate arrangements entered into between the general reorganization committee, acting for the new corporation, and the syndicate of bankers.

The syndicate agreed:

1. Guaranteed subscription to $6,975,000 new preferred stock and $30,250,000 new common stock, to be offered to the old first preferred, second preferred and common stockholders.
2. Agreed to purchase $9,000,000 prior lien 3½'s, due 1925; $12,450,000 first (general) mortgage 4's, due 1948; $16,450,000 4 per cent preferred stock.
3. Agreed "to protect the new company in the ownership and possession" of the property covered by its mortgages, by acquiring the old bonds, at par, from those who would not care to refund them into new bonds. The syndicate agreed to exchange such acquired old bonds for the corresponding amounts of new bonds specified in the plan.
4. Agreed to purchase $3,800,000 par value of Western Union Telegraph Company stock at $90 a share.—See *Chronicle,* vol. 66 (1898), p. 1,235; also Daggett, *Railroad Reorganization,* pp. 24 and 346.

44 Sometimes—and the practice is growing quite common—the underwriting syndicate arranges with another syndicate of bankers to advance the necessary money. In the St. Louis and San Francisco reorganization of 1916, the ordinary underwriting syndicate, called in this case the Purchase Syndicate because it purchased outright a large block of prior lien bonds, made arrangements with the Loan Syndicate to carry its bonds. The compensation of the former was 4 per cent of the par value of the bonds, and of the latter approximately 2¾ per cent, both commissions being paid out of the assessments on the stockholders.

In the Pere Marquette reorganization of 1917 the Purchase Syndicate received a commission of 5 per cent on its entire obligation, out of which it compensated the Guaranty Trust Company of New York, which formed a Loan Syndicate, to carry the entire obligation of the Purchase Syndicate on a 20 per cent margin. The use of two syndicates, one to carry the risk and the other to advance the capital, seems to be growing in frequency.

45 The syndicate which stood back of the Union Pacific reorganization received for its services $5,000,000 in preferred stock (valued at about 60 per cent) and the managing bankers $1,000,000. (Daggett, *Railroad Reorganizations,* p. 253.) Such allotments of preferred stock are rare. Distinctly, the

or common stock,[46] or both. In addition, still, the rights of the non-assenting stockholders, which revert to the syndicate, may be looked upon as a fourth kind of compensation.[47] In general, the net amount of the special discount on the bonds and the commission on the money advanced may be looked upon as approximately equal to the direct and indirect expenses incurred by the syndicate. A profit can arise only through the development of a substantial value for the stocks received as a bonus. This can occur only if the reorganized company is a success. Obviously, therefore, the members of the underwriting syndicate must assume an active interest and directly coöperate in the future welfare of the road. This interest must, for selfish reasons alone, continue long after the reorganization plan has been consummated. Taking into account the risks both of money and business reputation which a reorganization syndicate assumes, the compensations given of late years are not exorbitant. They are, comparatively speaking, less than what affiliated bankers demand for the sale of the securities of solvent corporations, when the chance of loss is negligible; they are less, comparatively, than what receivers are accustomed to demand for purely nominal responsibilities involving no permanent risks.[48]

ARTHUR S. DEWING.

commonest form of bonus is a liberal issue of common stock alone without any preferred stock or bonds.

46 J. P. Morgan's banking house received $750,000 in common stock of the new Southern Railroad for the most difficult of Mr. Morgan's reorganizations. The stock had, at the time, little value.

47 In rare instances, the terms offered to purchase outright new securities are less favorable than those offered the old security holders directly. Thus, in the small, but notably unfortunate, Gulf, Florida and Alabama case the old bondholders were allowed to purchase, for $250 in money, $500 in prior lien bonds and $250 in second lien and common stock; whereas the syndicate members were given, for the same money price, $400 in the prior lien bonds and $150 in each of the junior securities.

48 For other discussions of the reorganization syndicate see Joline, *Reorganizations of Corporations,* p. 56; Daggett, *Railroad Reorganization,* p. 345; Meade, "The Reorganization of Railroads," *An. Am. Acad. Pol. Soc. Sci.,* vol. 17 (1901), p. 205.